DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023183

Address: 333 Burma Road **Date Inspected:** 02-May-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr. Sun Tian Liang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component: OBG Segment**

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 009008 – Face A Side

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13AE. The weld designations reviewed are as follows:

- 1. SEG3007G-216, 013, 133
- 2. SEG3007J-168, 011, 030
- 3. SEG3007L-011, 040

Magnetic Particle Testing (MT) – NWIT Document No's: 009005

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Segment 13AE. The weld designations reviewed are as follows:

1. SEG3007AB-023

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OBG Trail Assembly

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3015K-207 to 215 located on vertical plate stiffener at panel point 123 of Segment 13CW. ZPMC Welder is identified as 066179. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

SMAW welding of weld joint SEG3015K-216 to 220 located on vertical plate stiffener at panel point 123 of Segment 13CW, ZPMC Welder is identified as 067588. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

SMAW welding of weld joint SEG3015S-002, 005, 008, 011, 014, 017 and 020 located on vertical plate stiffener at panel point 122 of Segment 13BW. ZPMC Welder is identified as 045196. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

Flux Core Arc Welding (FCAW) welding of weld joint SA3126-003~005-005 and 007 located on bottom plate connected SA3126 at panel point 123 to 123.5 of OBG Segment 13CW. ZPMC Welder is identified as 045143. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231-ESAB.

FCAW welding of weld joint OBW13-001 located on deck panel to deck panel of OBG Segment 13BW to OBG Segment 13CW. ZPMC Welder is identified as 066421. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-223(2)1T-ESAB.

SMAW welding of weld joint SEG3020AQ-025 located on side plate to anchor plate at panel point 125 to 127 of OBG Segment 14W. ZPMC Welder is identified as 066361. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-1G-(1F)-FCM-Repair-1, which is used as per Critical Welding Repair Report (CWR) B-CWR-2923R1.

This QA inspector observed ZPMC personnel performed Magnetic particle Testing (MT) on Deck Panel Diaphragm to Floor Beam Flange Weld at Panel point 124 and 124.5 CB Side of OBG Segment 13BW. The weld number is identified as SEG3015D-002 and SEG3015F-002. See the attached picture.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

WELDING INSPECTION REPORT

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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar, Vibin	Quality Assurance Inspector
Reviewed By:	Patel, Hiranch	QA Reviewer